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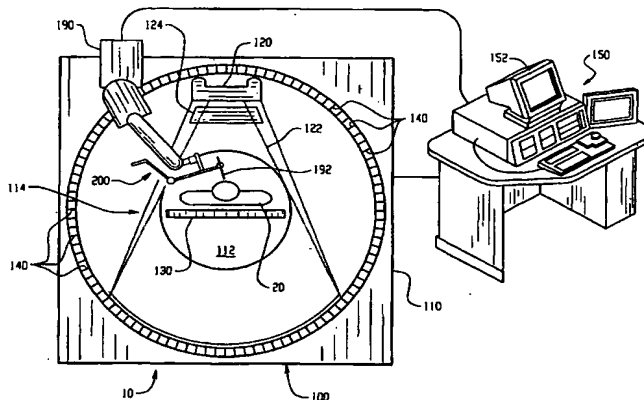
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(54) Title: REMOTELY HELD NEEDLE GUIDE FOR CT FLUOROSCOPY



(57) Abstract: A guide apparatus (200) is provided for use with an associated imaging device (100) to direct movement of an associated interventional implement (192) relative to a patient (20) disposed on the imaging device (100). The guide apparatus includes a connector portion (210) coupling the guide apparatus with the associated imaging device (100). A main body portion (220) of the apparatus is supported relative to the associated imaging device by the connector portion (210). A gripping area (230) is formed at a first end (222) of the main body portion (220), the gripping area (230) being adapted to the guide apparatus (200) for manual gripping by an associated operator. A holding area (240) is formed at a second end (224) of the main body portion (220). The holding area (240) is adapted to hold the associated interventional implement (192) in an orientation suitable for motion relative to said patient (20) along a selected linear path (P) and also operative to translate the associated interventional implement (192) along said selected linear path (P) in response to manual force applied by the associated human operator at said gripping area (230). A robot arm (190) positions the apparatus to hold a biopsy needle relative to the patient based on a virtual planned trajectory. A linear slider joint constrains movement of the needle to the path (P) and permits manual insertion of the needle and attendant tactile feedback.